

# Fuel Economy Test Car List Database Files

The Test Car List data are the vehicle information and test results that were used in calculating the Gas Mileage GUIDE. For information on the acronyms and how these data are used in the calculation of the GUIDE values, please refer to 40 CFR Part 600 - Fuel Economy of Motor Vehicles.

## Database Formats

### **Instructions for Reading the Test Car List/Database Files.**

The ZIP'd versions of these files are named ??MFTCL.ZIP for 1997 or earlier model years and ??TSTCAR.ZIP? for 1998 and later model years where “??” is equal to the last two digits of the model year.

#### ***1998 and later model years:***

Once unZIP'd, the files are in comma-delimited (.csv) or Excel Spreadsheet (.xls) format, which can be read by most spreadsheet programs.

#### ***1997 and earlier model years:***

These files, after being unZIP'd, have file names such as 96MFTCL.TXT ( or .DAT or ASC). They are plain ASCII (DOS) text files and in fixed column format.

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Different formats apply to different model years, one for 1984-1985, one for 1986-1997 and one for 1998 and later.

The format for 1998 and later is presented first, followed by the one for 1986-1997 and then for the 1984-1985 files.

This information is provided by the U.S. Environmental Protection Agency, Office of Transportation Air Quality, National Vehicle and Fuel Emissions Laboratory, 2000 Traverwood, Ann Arbor, MI 48105 (734-214-4200).

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## **Field Descriptions for 1998 and Later Files:**

The files are in comma-delimited format which can easily be read by spreadsheet program of a user's choice.

<u>Field Name</u>	<u>Description</u>
yr	- model year

**mfr** - mfr code

**Mfr**

<b>Code</b>	<b>Manufacturer Name</b>
20	DAIMLERCHRYSLER
30	FORD MOTOR COMPANY
40	GENERAL MOTORS
70	ASTON MARTIN
90	FIAT AUTO S.P.A.
108	ROVER GROUP LTD. (AR)
120	BMW
178	DAEWOO
190	DAIHATSU MOTOR COMPANY LTD.
196	MITSUBISHI MOTOR MANUF OF AMERIC
200	MERCEDES BENZ
220	FERRARI
230	FIAT
260	HONDA
265	HYUNDAI
290	ISUZU
305	JAGUAR CARS INC
338	KIA MOTORS CORPORATION
350	LOTUS
380	NISSAN
407	PANOZ AUTO-DEVELOPMENT CORP.
420	PORSCHE
440	ROLLS-ROYCE MOTOR CARS LTD.
460	LAND ROVER GROUP LTD.
470	SAAB
490	MITSUBISHI
491	MITSUBISHI MOTOR SALES AMERICA
492	MITSUBISHI MOTORS AUSTRALIA LTD
540	SUZUKI MOTOR CORPORATION
560	MAZDA MOTOR CORP.
570	TOYOTA
576	NEW UNITED MOTOR MFG INC
590	VOLKSWAGEN
600	VOLVO
640	AUDI
660	FUJI HEAVY IND - MAZDA
691	LAMBORGHINI

**bidx** - basic engine index number identifying a unique basic engine or sub-basic

- engine (if a basic engine is divided into two or more groups)
- vid** - manufacturer defined vehicle identification number within EPA's computer system (not a VIN number)
- carline** - car line name (test vehicle model name)
- car/truck** - 'C' for passenger vehicle and 'T' for truck (classification of the tested vehicle)
- cfg** - configuration number identifying a unique configuration within a vid
- cid** - cubic inch displacement of test vehicle
- police** - indicator for police vehicle (Y or N)
- rhp** - rated horsepower
- ec1** - exhaust emission control system code
- ec2** - exhaust emission control system code
- ec3** - exhaust emission control system code
- ec4** - exhaust emission control system code
- ec5** - exhaust emission control system code

**Code Description**

- 002 - Engine modification
- 005 - Thermal reactor
- 008 - Exhaust recycle
- 010 - Air pump
- 011 - Pulsating air system
- 016 - Oxidation catalyst
- 017 - Reduction catalyst
- 018 - Three-way catalyst
- 019 - Closed loop control of air/fuel ratio
- 020 - Three-way catalyst and closed loop control of air/fuel ratio
- 021 - Closed loop air injection
- 099 - Other

- evc** - evaporative emission control system code
  - 101 - Crankcase
  - 102 - Canister
  - 103 - Tank
  - 104 - None
  - 105 - Canister and charcoal air cleaner
  - 199 - Other

- trns** - transmission code
  - C4 - Manual 4-Speed (Creeper) (M-4)
  - M3 - Manual Three-Speed
  - M4 - Manual Four-Speed (No Creeper)
  - M5 - Manual Five-Speed
  - SA - Semi-Automatic
  - A3 - Automatic 3-Speed (No Lockup)
  - L3 - Lock-Up/Automatic/3-Speed
  - A4 - Automatic 4-Speed (No Lockup)
  - L4 - Lock-Up/Automatic/4-Speed
  - C5 - Manual 5-Speed (Creeper) (M-5)
  - S2 - Semi-Automatic Two Speed

- S3 - Semi-Automatic Three Speed
- S4 - Semi-Automatic Four Speed
- S5 - Semi-Automatic Five Speed
- AV - Automatic Variable Gear Ratios
- M6 - Manual Six Speed
- A5 - Automatic 5-Speed (No Lockup)
- L5 - Lock-Up/Automatic/5-Speed
- C6 - Manual 6-Speed (Creeper) (M-6)
- A6 - Automatic 6-Speed (No Lockup)
- S6 - Semi-Automatic Six Speed

**drv** - drive system code

- F - Front wheel drive
- R - Rear wheel drive
- 4 - 4-wheel or all-wheel drive

**od** - overdrive code

- 1 - No gear ratio <1
- 2 - Top gear ratio <1
- 3 - Electronically operated overdrive
- 4 - Computer-controlled automatic electronic overdrive
- 5 - Computer-controlled automatic electronic overdrive with lockout switch

**trans\_desc** - Transmission descriptor (it is constructed according to the following logic: Transmission descriptors are constructed based on the data submitted on G2 record of the General Label subsystem

If Shift Indicator Light is (Y)	SIL
If Engine Management System is (Y or L)	EMS
If Number of Transmission Mode is an x which is V, C or a number between 2 and 9 (If x is 1, this item is not to be used)	xMODEM
If Variable Lockup Point is an x which is V, C or a number between 2 and 9 (If x is 1, this item is not to be used)	xLKUP
If Declutching/Freewheeling is Y or L	DC/FW

Any combination of the above, with a blank in between and in the order as shown and not to exceed 15 columns, makes up a transmission descriptors field.

If the last three (xMODE, xLKUP, DC/FW) are the only descriptors, it is to be displayed as xMODE xLKUP FW.

**etw** - equivalent test weight

**cmp** - compression ratio

**axle** - axle ratio

**n/v** - n/v ratio (engine speed versus vehicle speed at 50 mph)

- a/c** - indicates air conditioning simulation
  - dhp** - dynamometer horsepower
  - sil** - shift indicator light for standard transmissions (y = yes or n = no,, indicates if test was performed used the sil to upshift during the test driving cycle.)
  - prc** - test procedure code
    - 2 - CVS 75 & later (EPA city w/o canister loading)
    - 3 - HWFE (highway test)
    - 21 - Fed fuel 2-day exhaust (C4H10 canister load)
    - 25 - Calif fuel 2-day exhaust (C4H10 canister load)
    - 31 - Federal fuel 3-day exhaust (C4H10 canister load)
    - 35 - Calif fuel 3-day exhaust (C4H10 canister load)
    - 41 - Federal fuel 2-day exhaust (heat fuel tank to load canister)
    - 45 - Calif fuel 2-day exhaust (heat to load)
  - prp** - test purpose code
    - 01 - Emission data
    - 08 - Manufacturers' development
    - 31 - Fuel economy
    - 32 - Analytical fuel economy
  - tnum** - test number, a unique identifier for a set of test data performed performed at the manufacturer or EPA test lab.
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- fuel** - fuel type code
    - 06 - Unleaded (at EPA 96 RON)
    - 09 - Diesel (at EPA #2 Diesel)
    - 22 - Special unleaded (91 RON)
    - 23 - Carb Phase II Gasoline
    - 33 - Methanol(M85)
    - 39 - Ethanol
    - 41 - CNG
  - C/H** - city (C) or highway (H) test identifier
  - avcd** - averaging code for weighting test fuel economy in cases like testing with and without use of shift indicator light
  - wt** - weighting factor for averaging mpg values
  - hc** - HC(hydrocarbon emissions) Test level composite results
  - co** - CO(carbon monoxide emissions) Test level composite results
  - co2** - CO2(carbon dioxide emissions) Test level composite results
  - nox** - NOX(nitrogen oxide emissions) Test level composite results
  - pm** - particulate matter (for diesel powered vehicles) Test level composite results
  - mpg** - mpg(fuel economy, miles per gallon) Test level
  - target-a** - electric dynamometer target coefficient a
  - target-b** - electric dynamometer target coefficient b
  - target-c** - electric dynamometer target coefficient c

**set-a** - electric dynamometer set coefficient a  
**set-b** - electric dynamometer set coefficient b  
**set-c** - electric dynamometer set coefficient c

# Database Format for 1986-1997 Fuel Economy Test Car List Database Files.

The ZIP'd versions of these files are named ??MFTCL.ZIP, e.g., 93MFTCL.ZIP.

## DATA FILE DEFINITION FOR 1986 - 1997

### FILE DESCRIPTION

FIELD NUMBER	FIELD NAME	STARTING COLUMN	WIDTH	TYPE	# DEC. PLACES	COMMENTS
1	ACT-YR	1	4	I	0	FOUR DIGIT ACTIVE MODEL YEAR
x	NOT USED	5	1	H	0	NOT USED
2	VEHICLE TYPE	6	1	A	0	Code representing the car-line class ( V=PASSENGER CAR T=TRUCK)
3	VI-MFR-CODE	7	3	I	0	VEHICLE INFORMATION MANUFACTURER CODE (See the above list of manufacturer names for 1998 & later)
4	BAS-ENG-INDX	10	5	I	0	5 DIGIT CODE IDENTIFYING A SET OF DATA FOR A BASIC ENGINE INDEX
5	DISP-CU-IN	15	4	I	0	DISPLACEMENT (CU IN) FROM THE LABEL INPUT DATA
6	FUEL-SYSTEM	19	2	A	0	NUMBER VENTURIS/BARRELS OR 'FI' FOR FUEL INJECTION
7	CONT-SYS-1-6	21	2	A	0	CONTROL SYSTEMS CODE VALUES 1-5. EVAP CONTROL SYSTEM IN 6 AFTER / .
8	TRANS-CODE	44	2	A	0	TRANSMISSION CODE NAME FROM VI (PART OF TRANSMISSION CONFIGURATION)
9	HYPHEN	46	1	H	0	HYPHEN (PART OF TRANSMISSION CONFIGURATION)
10	OVR-DRV-CODE	47	1	I	0	OVERDRIVE CODE (PART OF TRANSMISSION CONFIGURATION) -- FROM VI (1=NO, 2=TOP GEAR<1, 3=ELEC O/D, 4=COMPUTER CONTROLLED, 5=COMPUTER CONTROLLED W/LOCKOUT)
11	NOT USED	48	3	H	0	NOT USED
12	EQUIV-TST-WT	51	4	I	0	EQUIVALENT TEST WEIGHT (POUNDS) -- FROM VI (Curb weight plus 300 pounds - refer to 40 CFR Part 86 for Equivalent Test Weight groups)
13	AXLE-RATIO	55	2	F	2	AXLE RATIO - FROM VI
14	N-V-RATIO	59	4	F	1	ENGINE RPM DIVIDED BY VEHICLE SPEED IN MILES -- FROM VI
15	DAT-TIM-ENTD	63	12	I	0	DATE/TIME RECORD ENTERED - YYMMDDHHMMSS
16	REL-DAT	75	6	I	0	RELEASE DATE OF MPG VALUES TO PUBLIC-- YYMMDD
17	CARLINE-MFR	81	3	I	0	CARLINE MANUFACTURER CODE
18	ABBR-MFR-NAM	84	5	A	0	ABBREVIATED MANUFACTURER NAME
19	SUPRESS-CODE	89	1	A	0	SUPPRESSION CODE
20	TST-TYP	90	1	A	0	* IF 31, # IF 32
21	NOT USED	91	10	H	0	NOT USED
22	VEH-ID	101	16	A	0	VEHICLE ID -- FROM VI
23	COMP-RATIO	117	4	F	1	COMPRESSION RATIO -- FROM VI
24	RATED-HP	121	3	I	0	RATED ENGINE HORSEPOWER - FROM VI
25	A-C-SIM	124	3		0	SIMULATED AIR CONDITIONING APPLIED, YES OR NO -- FROM VI
26	ACT-DYNO-HP	127	4	F	1	DYNAMOMETER HORSEPOWER SETTING USED WHEN TESTED -- FROM VI
27	NOT USED	131	5	H	0	NOT USED
28	BAS-ENG-DES1	136	10	A	0	BASIC ENGINE DESCRIPTOR 1
29	BAS-ENG-DES2	146	10	A	0	BASIC ENGINE DESCRIPTOR 2
30	BAS-ENG-DES3	156	10	A	0	BASIC ENGINE DESCRIPTOR 3
31	CARLINE-NAME	166	25	A	0	CARLINE NAME - MODEL NAME OF TEST VEHICLE
32	CTY-AVG-CDE	191	1	I	0	CODE IDENTIFYING USE OF SIL WEIGHTING

33	HWY-AVG-CDE	192	1	I	0	FOR LINK TO CITY CODE IDENTIFYING USE OF SIL WEIGHTING FOR LINK TO HWY
34	CTY-WT	193	4	I	0	CITY WEIGHT VALUE FOR SIL USAGE
35	HWY-WT	197	4	I	0	HIGHWAY WEIGHT VALUE FOR SIL USAGE
36	SIL	201	3	I	0	SHIFT INDICATOR LIGHT
37	DRV-SYS	204	3	A	0	DRIVE SYSTEM - (FWD = FRONT WHEEL DRIVE, ETC)
38	EVAP-PART	207	1	A	0	EVAPORATIVE/PARTICULATES (E=EVAP, P=PART, BLANK=NOTHING)
39	NOT USED	208	3	H	0	NOT USED
40	TRANS-DES	211	15	A	0	TRANSMISSION DESCRIPTOR
41	NOT USED	226	5	F	1	NOT USED
42	NOT USED	231	5	F	1	NOT USED
43	AVG-CMB	236	5	F	1	HARMONIC AVERAGE COMBINED CITY/HIGHWAY MPG VALUE FOR VEHICLE CONFIGURATION
44	NOT USED	241	26	H	0	NOT USED
45	NO-CITY-TSTS	267	2	I	0	NUMBER OF CITY-TESTS
46	NO-HWY-TESTS	269	2	I	0	NUMBER OF HIGHWAY TESTS
47	TST-RSLTS-01	271	30		0	TEST RESULTS-01 (1)F5.3-HC, (2)F5.2-CO, (3)F5.0-CO2, (4)F5.2-NOX, (5)F5.2-EVAP/PART, (6)F5.1-MPG
48	TST-RSLTS-02	301	30		0	TEST RESULTS-02 (1)F5.3-HC, (2)F5.2-CO, (3)F5.0-CO2, (4)F5.2-NOX, (5)F5.2-EVAP/PART, (6)F5.1-MPG
49	TST-RSLTS-03	331	30		0	TEST RESULTS-03 (1)F5.3-HC, (2)F5.2-CO, (3)F5.0-CO2, (4)F5.2-NOX, (5)F5.2-EVAP/PART, (6)F5.1-MPG
50	TST-RSLTS-04	361	30		0	TEST RESULTS-04 (1)F5.3-HC, (2)F5.2-CO, (3)F5.0-CO2, (4)F5.2-NOX, (5)F5.2-EVAP/PART, (6)F5.1-MPG
51	TST-RSLTS-05	391	30		0	TEST RESULTS-05 (1)F5.3-HC, (2)F5.2-CO, (3)F5.0-CO2, (4)F5.2-NOX, (5)F5.2-EVAP/PART, (6)F5.1-MPG
52	TST-RSLTS-06	421	30		0	TEST RESULTS-06 (1)F5.3-HC, (2)F5.2-CO, (3)F5.0-CO2, (4)F5.2-NOX, (5)F5.2-EVAP/PART, (6)F5.1-MPG
53	TST-RSLTS-07	451	30		0	TEST RESULTS-07 (1)F5.3-HC, (2)F5.2-CO, (3)F5.0-CO2, (4)F5.2-NOX, (5)F5.2-EVAP/PART, (6)F5.1-MPG
54	TST-RSLTS-08	481	30		0	TEST RESULTS-08 (1)F5.3-HC, (2)F5.2-CO, (3)F5.0-CO2, (4)F5.2-NOX, (5)F5.2-EVAP/PART, (6)F5.1-MPG

[end]

# Database Format for 1984-1985 Fuel Economy Test Car List Database Files.

The ZIP'd versions of these files are named ??MFTCL.ZIP, e.g., 93MFTCL.ZIP

## DATA FILE DEFINITION FOR 1984 and 1985 FILE DESCRIPTION

FIELD NUMBER	FIELD NAME	STARTING COLUMN	WIDTH	TYPE	# DEC. PLACES	COMMENTS
1	ACT-YR	1	4	I	0	FOUR DIGIT ACTIVE YEAR
2	SALES CLASS	5	2	A	0	SALES CLASS: FV=49STATE VEH FT=TRK CV=CALIF VEH CT=TRK
3	VI-MFR CODE	7	3	I	0	VEHICLE INFORMATION MANUFACTURER CODE
4	BAS-ENG-INDX	10	5	I	0	5 DIGIT CODE IDENTIFYING A SET OF DATA FOR A BASIC ENGINE INDEX
5	DISP-CU-IN	15	4	I	0	DISPLACEMENT (CU IN) FROM CARD 5'S
6	FUEL-SYSTEM	19	2	A	0	NUMBER VENTURIS/BARRELS OR 'F' FOR FUEL INJECTION
7	CONT-SYS-1-6	21	23	A	0	CONTROL SYSTEMS CODE VALUES 1-5. EVAP CONTROL SYSTEM IN 6 AFTER / .
8	TRANS-CODE	44	2	A	0	TRANSMISSION CODE NAME FROM VI (PART OF TRANSMISSION CONFIGURATION)
9	HYPHEN	46	1	H	0	HYPHEN (PART OF TRANSMISSION CONFIGURATION)
10	OVR-DRV-CODE	47	1	I	0	OVERDRIVE CODE (PART OF TRANSMISSION CONFIGURATION) -- FROM VI (1=NO, 2=TOP GEAR<1, 3=ELEC O/D, 4=COMPUTER CONTROLLED, 5=COMPUTER CONTROLLED W/LOCKOUT)
11	NOT USED	48	3	H	0	NOT USED
12	EQUIV-TST-WT	51	4	I	0	EQUIVALENT TEST WEIGHT (POUNDS) -- FROM VI
13	AXLE-RATIO	55	4	F	2	AXLE RATIO - FROM VI
14	N-V-RATIO	59	4	F	1	ENGINE RPM DIVIDED BY VEHICLE SPEED IN MILES -- FROM VI
15	DAT-TIM-ENTD	63	12	I	0	DATE/TIME RECORD ENTERED - YYMMDDHHMMSS
16	REL-DAT	75	6	I	0	RELEASE DATE -- YYMMDD
17	CARLINE-MFR	81	3	I	0	CARLINE MANUFACTURER CODE
18	ABBR-MFR-NAM	84	5	A	0	ABBREVIATED MANUFACTURER NAME FROM SAQE:1001D
19	SUPRESS-CODE	89	1	A	0	SUPPRESSION CODE
20	TST-TYP	90	1	A	0	* IF 31, # IF 32
21	NOT USED	91	10	H	0	NOT USED
22	VEH-ID	101	16	A	0	VEHICLE ID -- FROM VI
23	COMP-RATIO	117	4	F	1	COMPRESSION RATIO -- FROM VI
24	RATED-HP	121	3	I	0	RATED ENGINE HORSEPOWER - FROM VI
25	A-C-SIM	124	3		0	SIMULATED AIR CONDITIONING APPLIED, YES OR NO -- FROM VI
26	ACT-DYNO-HP	127	4	F	1	DYNAMOMETER HORSEPOWER SETTING USED WHEN TESTING -- FROM VI
27	NOT USED	131	5	H	0	NOT USED
28	BAS-ENG-DES1	136	10	A	0	BASIC ENGINE DESCRIPTOR 1
29	BAS-ENG-DES2	146	10	A	0	BASIC ENGINE DESCRIPTOR 2
30	BAS-ENG-DES3	156	10	A	0	BASIC ENGINE DESCRIPTOR 3
31	CARLINE-NAME	166	25	A	0	CARLINE NAME FROM CAR/TRUCK FILE 1236D-ACRTRK
32	CTY-AVG-CDE	191	1	I	0	CODE IDENTIFYING USE OF SIL WEIGHTING FOR LINK TO CITY
33	HWY-AVG-CDE	192	1	I	0	CODE IDENTIFYING USE OF SIL WEIGHTING FOR LINK TO HWY
34	CTY-WT	193	4	I	0	CITY WEIGHT VALUE FOR SIL USAGE
35	HWY-WT	197	4	I	0	HIGHWAY WEIGHT VALUE FOR SIL USAGE
FIELD NUMBER	FIELD NAME	STARTING COLUMN	WIDTH	TYPE	# DEC. PLACES	COMMENTS
36	SIL	201	3	I	0	SHIFT INDICATOR LIGHT
37	DRV-SYS	204	3	A	0	DRIVE SYSTEM - (FWD = FRONT WHEEL DRIVE, ETC)
38	EVAP-PART	207	1	A	0	EVAPORATIVE/PARTICULATES (E=EVAP, P=PART, BLANK=NOTHING)

39	NOT USED	208	3	H	0	NOT USED
40	TRANS-DES	211	15	A	0	TRANSMISSION DESCRIPTOR
41	NOT USED	226	5	F	1	NOT USED
42	NOT USED	231	5	F	1	NOT USED
43	AVG-CMB	236	5	F	1	HARMONIC AVERAGE COMBINED MPG VALUE FOR VEHICLE CONFIGURATION
44	NOT USED	241	26	H	0	NOT USED
45	NO-CITY-TSTS	267	2	I	0	NUMBER OF CITY-TESTS
46	NO-HWY-TESTS	269	2	I	0	NUMBER OF HIGHWAY TESTS
47	TST-RSLTS-01	271	30		0	TST RES-01 F5.3-HC,F5.2-CO,F5.0-CO2,F5.2-NOX,F5.2-EVAP/PART,F5.1-MPG
48	TST-RSLTS-02	301	30		0	TST RES-02 F5.3-HC,F5.2-CO,F5.0-CO2,F5.2-NOX,F5.2-EVAP/PART,F5.1-MPG
49	TST-RSLTS-03	331	30		0	TST RES-03 F5.3-HC,F5.2-CO,F5.0-CO2,F5.2-NOX,F5.2-EVAP/PART,F5.1-MPG
50	TST-RSLTS-04	361	30		0	TST RES-04 F5.3-HC,F5.2-CO,F5.0-CO2,F5.2-NOX,F5.2-EVAP/PART,F5.1-MPG
51	TST-RSLTS-05	391	30		0	TST RES-05 F5.3-HC,F5.2-CO,F5.0-CO2,F5.2-NOX,F5.2-EVAP/PART,F5.1-MPG
52	TST-RSLTS-06	421	30		0	TST RES-06 F5.3-HC,F5.2-CO,F5.0-CO2,F5.2-NOX,F5.2-EVAP/PART,F5.1-MPG
53	TST-RSLTS-07	451	30		0	TST RES-07 F5.3-HC,F5.2-CO,F5.0-CO2,F5.2-NOX,F5.2-EVAP/PART,F5.1-MPG
54	TST-RSLTS-08	481	30		0	TST RES-08 F5.3-HC,F5.2-CO,F5.0-CO2,F5.2-NOX,F5.2-EVAP/PART,F5.1-MPG

[end]